

IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF NORTH CAROLINA  
WESTERN DIVISION  
No. 5:07-CV-275-D

SILICON KNIGHTS, INC., )  
 )  
Plaintiff, )  
 )  
v. ) **ORDER**  
 )  
EPIC GAMES, INC., )  
 )  
Defendant. )

On July 8, 2011, Epic Games, Inc., (“Epic” or “defendant”) filed a motion to exclude the reports and testimony of Terry Lloyd, an expert for Silicon Knights, Inc. (“SK” or “plaintiff”), and a motion to seal Epic’s supporting memorandum and exhibits [D.E. 620, 623]. On July 15, 2011, SK responded in opposition and filed a motion to seal the response [D.E. 643, 644]. On July 22, 2011, Epic replied [D.E. 662]. On November 30, 2011, the court held a hearing on the motion to exclude [D.E. 691]. On December 6, 2011, SK filed a submission in response to the court’s inquiries on November 30, 2011 [D.E. 695]. As explained below, the court grants Epic’s motion to exclude the reports and testimony of Terry Lloyd. As for the motions to seal, the court grants the motions to seal in part and denies the motions to seal in part.

I.

SK and Epic are both in the business of developing video games. On May 10, 2005, SK entered into a license agreement to use Epic’s video game engine, the Unreal Engine 3 (“UE3”), in SK’s development of Too Human, a game that SK produced under a publishing agreement with Microsoft. SK contends that problems with UE3 eventually forced SK to develop its own game engine (“SKE”), delaying the release of Too Human by nearly two years. SK claims that this delay and additional costs caused by the delay caused decreased sales of Too Human, caused Microsoft

to end negotiations to develop two sequels to Too Human, damaged SK's reputation, and impaired SK's ability to secure future development projects. In 2007, SK filed suit against Epic. SK alleges that, during the parties' license-agreement negotiations, Epic made false representations concerning the license agreement and the functionality of UE3. SK asserted multiple claims against Epic, including breach of contract, fraud, and other torts. In response, Epic filed counterclaims asserting breach of contract, copyright infringement, and misappropriation of trade secrets, and seeking imposition of a constructive trust. The parties engaged in substantial discovery. At the end of discovery, the court granted in part and denied in part cross motions for summary judgment. SK's remaining claims are fraudulent inducement, negligent misrepresentation, Unfair and Deceptive Trade Practices Act ("UDTPA") violations, and common law unfair competition. Epic's remaining counterclaims are copyright infringement, breach of license agreement, misappropriation of trade secrets, and its request for imposition of a constructive trust.

On July 8, 2011, Epic filed a motion to exclude SK's damages expert, Terry Lloyd, and his proposed testimony regarding various categories of SK's alleged lost profits and damages. Thereafter, SK responded in opposition and Epic replied. On November 30, 2011, the court held a hearing on Epic's motion to exclude.

Terry Lloyd ("Lloyd") is a Certified Public Accountant and Chartered Financial Analyst. SK's Opp'n Mot. Exclude [D.E. 643] 5. SK retained Lloyd to render an opinion regarding SK's alleged damages. Id. Lloyd has identified six categories of damages: (1) lost royalties due to decreased sales of Too Human caused by its delayed release (approximately \$6,200,000); (2) lost income from publisher bonus payments based on decreased sales of Too Human (approximately \$750,000); (3) lost income from royalties on Too Human "ancillary" sales (approximately \$810,000); (4) lost profits from two Too Human sequels (approximately \$16,142,000 for Too Human II and approximately \$14,252,000 for Too Human III) and The Ritualyst, another video game (approximately \$8,748,000); (5) the additional cost for SK to develop a replacement game engine

(approximately \$2,308,000); and (6) economic harm to SK's reputation, which limited future game development opportunities (approximately \$8,951,000). Revised Report of Terry Lloyd [D.E. 564-1] 6–7 (May 4, 2010) (hereinafter “Lloyd Report”); see SK's Opp'n Mot. Exclude 5–7. Alternatively, Lloyd has calculated SK's damages as a portion of Epic's profits based on a theory of unjust enrichment. See Lloyd Report 7; SK's Opp'n Mot. Exclude 7. Lloyd also has prepared a rebuttal report in response to Epic's expert witness, Phillip Beutel (“Beutel”), regarding the amount of damages Epic seeks in its counterclaims. See Report of Terry Lloyd [D.E. 621-2] (May 7, 2010) (hereinafter “Lloyd Rebuttal”).

SK originally planned to release Too Human in November 2006, but due to various delays, SK did not release Too Human until 2008. See Lloyd Decl. [D.E. 643-2] ¶ 10; Lloyd Report 9. Lloyd estimated that about half of the two-year delay was attributable to “normal slippage” in the industry. See Lloyd Decl. ¶ 10; Lloyd Report 23 & n.39. Therefore, in order to calculate SK's lost profits allegedly caused by Epic, Lloyd attempted to predict what Too Human's sales would have been if it had been released in August 2007. See Lloyd Decl. ¶ 10. Lloyd referred to this projection as a “but-for world,” where SK's development of Too Human would not be affected by Epic's alleged wrongful conduct. See Lloyd Report 22–24; Lloyd Dep. [D.E. 564-4] 67–68. Lloyd employed a methodology known as a “yardstick” or “comparables” approach, which measured SK's damages by comparing Too Human to similar games in order to project the sales SK would have generated from a 2007 release of Too Human. Lloyd Decl. ¶ 2. Lloyd contended that he conducted a comparables analysis by looking at games with similar characteristics to Too Human that were released during the same general time period. Id.; see Lloyd Dep. 131–32. Lloyd described the process of determining which variables he used to find comparable games as “very much an inexact science,” and admitted that there was “a fair amount of subjectivity” and “uncertainty” involved. See Lloyd Dep. 14–16, 178.

Lloyd's first step in finding comparable games was to sort video games by genre. Lloyd Decl. ¶ 4. Lloyd initially excluded any game that was not of a genre similar to Too Human's. Id.<sup>1</sup> Lloyd explained that the chosen genres were a "judgment call based on what we understood about the game." Lloyd Dep. 131. Second, Lloyd eliminated any video game published before 2006 because the Xbox 360 was released in November 2005. Lloyd Decl. ¶ 5. Third, Lloyd eliminated any game with a Metacritic<sup>2</sup> rating lower than Too Human's rating, because Lloyd believed that Too Human's rating would have been at least as high if it had been released a year earlier. Id. ¶ 6. Lloyd also excluded all games that did not sell at least 640,000 units, the number of units Too Human actually sold.<sup>3</sup> Lloyd Dep. 151–52. After applying the above criteria, Lloyd added or removed games from the list based on Lloyd's "judgment" and discussions with his colleagues at his financial consulting company and with Denis Dyack ("Dyack"), SK's president. See id. at 134–37, 140–43, 167–71. Lloyd explained that he "added and subtracted as [he] saw fit" until he created a group of games that he felt was comparable. Id. 136. For example, Lloyd removed Halo "because [it] just seemed like such an outlier, and it was different enough, in [his] judgment, that it wasn't really a comp[arable game]." Id. 135. Lloyd added Grand Theft Auto IV based on the advice of Jeremy Sherlock ("Sherlock"), an employee of Sega. Id. 142–43. Lloyd explained that he "judgmentally included" Grand Theft Auto IV, even though it did not meet his identified criteria. Lloyd Decl. ¶

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<sup>1</sup> Because Lloyd decided that Too Human had elements of multiple genres, he included games from six different genres: (1) first person, action, shooter; (2) action, adventure; (3) first person, shooter; (4) first person, action, role-playing games ("RPG"), shooter; (5) action; (6) action, RPG. Id.

<sup>2</sup> Metacritic operates a video game review website. Epic's Mem. Supp. Mot. Exclude [D.E. 621] 17 n.21. In determining a game's Metacritic rating, "Metacritic combines a number of scores from individual critics using a proprietary algorithm and assigns a single [Metacritic rating]." Id.

<sup>3</sup> Lloyd acknowledged the possibility that Too Human could have sold fewer units if SK had released it in 2007, but explained that his assumptions and criteria did not account for such an outcome. See Lloyd Dep. 195–97.

7.<sup>4</sup> Lloyd also used his judgment to add Gears of War. See Lloyd Dep. 135–40. Lloyd testified that he included some games because he believed “they would have been blockbusters.” Lloyd Dep. 168, 181.<sup>5</sup> Lloyd did not use any of SK’s previous games as comparables. See Lloyd Dep. 113–15.<sup>6</sup> Thus, Lloyd described the process of identifying comparable games as “evolutionary” and noted that it was not a simple two-step process. Id. 141. In fact, Lloyd could not recall “[what games] came in or out specifically after that first filter or first sort.” Id. 170.

Lloyd’s “evolutionary” process yielded a “comparables” data set of thirty-one games. Lloyd Decl. ¶ 7. Lloyd had confidence that a wider range of games would lead to a reasonable projection of Too Human’s expected sales from a 2007 release. Lloyd Dep. 131–33. Next, Lloyd decided to give extra weight to one game, Mass Effect, based on his “qualitative judgment” that Mass Effect’s characteristics were so close to Too Human’s that it deserved more weight. Lloyd Decl. ¶ 8. Although Lloyd believed that Mass Effect was a “particularly good” comparison, he admitted that this belief was “based on what are admittedly somewhat subjective factors.” Lloyd Dep. 170, 220–21. Lloyd explained that Mass Effect’s similarities were “good enough that we should give it fifty percent of the weighting . . . .” Id. 221. Lloyd then calculated Too Human’s projected unit sales

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<sup>4</sup> Lloyd said that it “wouldn’t have occurred to [him] to include Grand Theft Auto IV [as a comparable game], but [Sherlock] thought it was. He works in the industry. He stated [it was a comparable game]. We said we’ll accept his judgment on that.” Lloyd Dep. 142.

<sup>5</sup> As of May, 2010, Grand Theft Auto IV had sold 7.7 million units and Gears of War had sold 6.0 million units. Lloyd Report, Revised App. A, [D.E. 621-1] Schedule A-1.

<sup>6</sup> Lloyd says that he indirectly considered SK’s historical sales as a subjective factor in his analysis, but that he did not directly consider SK’s prior games because Too Human was “a different product,” offered on “a different platform,” at a “different date and time.” Lloyd Dep. 113–15. SK’s prior games resulted in total sales as follows: Blood Omen, Legacy of Kain, 320,082 units; Eternal Darkness, 403,757 units; Metal Gear Solid, Twin Snakes, 350,539 units. See Lloyd Report 22 n.34. At oral argument, SK’s counsel asserted that Blood Omen, Legacy of Kain sold over 2 million units. SK’s counsel, however, cited nothing in the record to support this assertion.

by giving equal weight to Mass Effect's total unit sales<sup>7</sup> and the average unit sales of the thirty-one comparable games. See Lloyd Decl. ¶ 9; Lloyd Report, Revised App. A, Schedule A-1.<sup>8</sup>

Lloyd concluded that if Too Human had been released in August 2007, SK would have sold an additional 1.9 million units of the game, for a total of 2.5 million units. Lloyd Report 23–24 & Revised App. A, Schedule A-1.<sup>9</sup> Based on this sales projection, Lloyd further concluded that SK would have received \$750,000 in bonus payments from Microsoft, and Microsoft would have sold other “ancillary” products, such as downloadable content<sup>10</sup> (“DLC”) for Too Human, resulting in \$810,000 additional income for SK. *Id.* at 26–28 & Revised App. A, Schedule A. Lloyd’s methodology does not have any statistical margin of error. Lloyd Dep. 130. Lloyd is not aware of any other cases where he (or any other expert witness) has applied this particular methodology in the way that he did in this case. See *id.* at 121–24.

Working from his conclusion that Too Human would have sold 2.5 million units if it had been released in August 2007, Lloyd then calculated the projected sales for SK’s undeveloped sequels, Too Human II and Too Human III.<sup>11</sup> Lloyd Dep. 223–24, 248. For each sequel, Lloyd used

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<sup>7</sup> Mass Effect’s total unit sales were 2.2 million. Lloyd Report, Revised App. A, Schedule A-1.

<sup>8</sup> The average total unit sales of the thirty-one selected games were 2,542,830. Lloyd Report, Revised App. A, Schedule A-1.

<sup>9</sup> SK actually released Too Human in 2008, resulting in sales of 640,076 units (through June 2009). Lloyd Report 22–23.

<sup>10</sup> “Downloadable content” includes extra game features or keys that users can purchase for small amounts and then download over the internet. Lloyd Report 27. Lloyd stated that these products “can be highly profitable given the ease of distribution and direct access between the consumer and the publisher.” *Id.*

<sup>11</sup> SK’s publishing agreement with Microsoft gave Microsoft the option to purchase the rights to the sequels, see SK-Microsoft Agreement [D.E. 533-17] § 7.3; however Microsoft never exercised its option and SK never developed either game. Epic’s Mem. Supp. Mot. Exclude 6. According to Epic, SK began “predevelopment work” for Too Human II, but did no work on Too Human III. Epic’s Mem. Supp. Mot. Exclude 6.

a small subset of the thirty-one comparable games identified for Too Human. Lloyd Decl. ¶ 11. Specifically, Lloyd assumed that SK would have released Too Human II in 2008, and therefore considered only games that were: (1) released in 2008; and (2) released as part of a franchise. Id. Lloyd identified three such comparable games, Fable II, Left 4 Dead 2, and Far Cry 2. See id.; Lloyd Report, Revised App. A, Schedule A-1. Based on the average sales of the three comparable games, Lloyd projected that Too Human II would have sold 2.5 million units. Lloyd Report, Revised App. A, Schedule A-1. As for Too Human III, Lloyd assumed that SK would have released the game in 2009 or 2010, and therefore only considered games that were (1) released in 2009 or 2010,<sup>12</sup> and (2) released as part of a franchise. Lloyd Decl. ¶ 12. Lloyd identified only two comparable games, Assassin's Creed II and Bioshock 2. See id.; Lloyd Report, Revised App. A, Schedule A-1. Based on the average sales of the two comparable games, Lloyd projected that Too Human III would have sold 2.4 million units. See Lloyd Report, Revised App. A, Schedule A-1.<sup>13</sup>

Lloyd also calculated the projected sales for another undeveloped game, The Ritualyst. SK had a publishing agreement with Sega to produce The Ritualyst; however, Sega assigned its rights to another company, THQ. See Epic's Mem. Supp. Mot. Exclude 7. THQ cancelled the project in 2009 when THQ ran out of money (for reasons unrelated to The Ritualyst). Id. The game was never finished. Id. Lloyd initially calculated the projected sales for The Ritualyst by simply averaging the sales from two games, Grand Theft Auto IV and Assassin's Creed II. See Lloyd Report, Revised

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<sup>12</sup> Because Lloyd's calculations relied on data compiled in May 2010, Lloyd excluded games released or sold after that date. Lloyd Decl. ¶ 12.

<sup>13</sup> SK never had an agreement to publish these sequels. However, Lloyd's calculations assume that SK would have negotiated publishing agreements similar to the agreement for Too Human. See Lloyd Dep. 246 ("Our assumption is that in the but-for world, the subsequent contracts would have looked remarkably like the original contract, including [the units sold bonus provision]. That Microsoft would have been happy enough with [Too Human], that the volumes would have been high enough to say—that they would have said let's do it again. Same royalty rates, same milestones, same bonus payments, things like that.").

App. A, Schedule A-1; Lloyd Dep. 226–28. However, the two comparables had an average of 5.7 million units sold, which “struck [Lloyd] as high.” Lloyd Dep. 228–29. Lloyd decided that he “felt more comfortable with a sales volume in line with the original Too Human forecast and applied that to The Ritualyst.” Lloyd Decl. ¶ 13; see Lloyd Dep. 228–29. Thus, Lloyd returned to the average units sold from the Too Human comparable game set and concluded that 2.8 million units sold was a reasonable estimate for The Ritualyst. See Lloyd Report, Revised App. A, Schedule A-1; Lloyd Decl. ¶ 13.

Next, Lloyd calculated the additional costs SK incurred to develop its own engine to replace Epic’s UE3. Lloyd Report 28–29 & Revised App. A, Schedule E. Lloyd relied on SK’s representation of the amount of time it took SK to develop its own engine, and calculated an additional cost of approximately \$3.1 million. See id.

Last, Lloyd calculated the economic harm SK suffered due to reputational harm. See Lloyd Report 29–31 & Revised App. A, Schedule F; SK’s Opp’n Mot. Exclude 25–26. SK claims it suffered harm to its reputation and goodwill in the form of lost development opportunities with publishers Vivendi, THQ, Capcom, and NAMCO. See SK’s Opp’n Mot. Exclude 25–26. Lloyd concluded that SK’s lost profits from these undeveloped games were an accurate measure of SK’s reputational harm. Lloyd Report 29–31; Lloyd Dep. 264. SK was negotiating development plans for two of the projects, King’s Quest and Sandman, and had developed a prototype for King’s Quest. See SK’s Opp’n Mot. Exclude 25. However, there were no specific games associated with the other two projects, only “discussions” with the publishers. Lloyd Dep. 277–78. In calculating the lost profits for these projects, Lloyd did not attempt to define the genres of the undeveloped projects (as he did for Too Human). See id. 264–66. Instead, Lloyd simply calculated damages by using the expected units sold from his analysis of Too Human. Id. 265. As a result, Lloyd based his calculations on the assumption that each project would sell 2.5 million units. See Lloyd Report, Revised App. A, Schedule F. Lloyd also applied a “probability factor” to each project to account



for the possibility that a project might not be developed. See Lloyd Report 30 & Revised App. A, Schedule F. To determine the probability factor for each project, Lloyd said that he made “judgment call[s],” estimating each project’s likelihood of development based on what he understood about the project and what he thought was reasonable. Lloyd Dep. 267–78. Lloyd acknowledged that he chose the probability factors from ranges of possible percentages, and that he could have used other numbers. Id.<sup>14</sup> Lloyd did not calculate a confidence interval for the assigned percentages. Id. 274. Adding together all of his damages calculations, Lloyd concluded that SK incurred \$63.6 million in damages as a result of Epic’s alleged conduct. See Lloyd Report, Revised App. A, Schedule A; Lloyd Dep. 293.

As an alternative measure of damages, Lloyd calculated SK’s damages as a portion of Epic’s profits. See Lloyd Report 31–37, 38–40. Lloyd noted that Epic’s profits may be relevant to a punitive damages award or as compensatory damages under a theory of unjust enrichment. See id. & Revised App. A, Schedule A. Lloyd calculated Epic’s profits from 2005 to 2009 as between \$8.1 million and \$49.6 million.<sup>15</sup> See id. He determined that SK is entitled to between \$8.7 million and \$52.9 million. See id.<sup>16</sup>

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<sup>14</sup> Specifically, Lloyd assigned King’s Quest a 90 percent probability, but stated that he thought the range of reason was somewhere between 50 to 100 percent. See Lloyd Dep. 268–73. As for Sandman, Lloyd assigned a 75 percent probability, but stated that the range of reason was approximately 40 to 90 percent. See id. 274–77. For the other two unnamed projects, Lloyd assigned a twenty-five percent probability, but said that the range of reason was between zero and fifty percent. See id. 277–78.

<sup>15</sup> Lloyd calculated Epic’s profits in two ways. Lloyd Report 33. His first calculation considered only “the historical, actual profits realized from the release of Unreal Tournament 3, Gears of War, and Gears of War II,” and the actual value of UE3. Id. The second calculation considered the ongoing value to Epic of the UE3-related products, calculated through reference to Epic’s cash flow from such products. Id.

<sup>16</sup> Lloyd also calculated SK’s entitlement to Epic’s profits using alternative share rates. He reached his first share rate of 15.3 percent by comparing Epic’s costs in developing UE3 with the amount that SK paid Epic under the licensing agreement, which Lloyd stated reflected SK’s investment in UE3. Lloyd Report 36. He reached his second share rate of 2.5 percent by considering

As for Lloyd's rebuttal opinions, Lloyd argued that Epic's expert, Beutel, overstated the amount of damages SK would owe if Epic prevailed on its counterclaims. See Lloyd Rebuttal 3–7. Beutel opined that Epic's damages are \$4.45 million for unpaid fees under the license agreement and over \$55 million for misappropriation of trade secrets or copyright infringement. See Beutel Report [D.E. 636-7] 6–13. Lloyd posited that SK could have renegotiated its license agreement with Epic or used a free version of UE3 to reduce the amount of licensing fees that SK would have owed to \$3.85 million. See Lloyd Rebuttal at 7–10. Lloyd also challenged the accuracy of Beutel's calculation of Epic's damages for SK's alleged misappropriation. See id. 10–11.

Epic argues that Lloyd's opinions should be excluded for three reasons. First, Lloyd is not qualified to make the assumptions regarding the video game industry necessary to support his calculations. See Epic's Mem. Supp. Mot. Exclude 10–12. Second, Lloyd's opinions do not fit the facts of the case. See id. 12–13. Third, Lloyd's methodologies are unreliable and speculative. See id. 13–21. SK argues that Epic's objections go to the weight that should be given to Lloyd's opinions, not their admissibility, and are matters best left for cross-examination. See SK's Opp'n Mot. Exclude 1–3, 12, 18, 21.

## II.

Rule 702 of the Federal Rules of Evidence governs the admission of expert testimony. Fed. R. Evid. 702. The proponent of the expert testimony bears the burden of establishing its admissibility by a preponderance of evidence. Cooper v. Smith & Nephew, Inc., 259 F.3d 194, 199 (4th Cir. 2001). A district court has broad latitude in making its determination on the admissibility of proposed expert testimony. United States v. Gastiaburo, 16 F.3d 582, 589 (4th Cir. 1994).

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the amount that Epic received in UE3 licensing fees between 2005 and 2006 from the various licensees, and comparing that to the amount that Epic received from SK to license UE3 during this period. Id. & Revised App. A, Schedule J.

Rule 702 provides that expert testimony is appropriate when it “will assist the trier of fact to understand the evidence or to determine a fact in issue.” Fed. R. Evid. 702. Rule 702 further provides that a witness qualified as an expert may be permitted to testify where “(1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.” *Id.* Courts have distilled Rule 702’s requirements into two crucial inquiries: whether the proposed expert’s testimony is relevant and whether it is reliable. Kumho Tire Co. v. Carmichael, 526 U.S. 137, 141 (1999); Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579, 589 (1993); United States v. Forrest, 429 F.3d 73, 80 (4th Cir. 2005). The trial court must carry out the special gatekeeping obligation of ensuring that expert testimony meets both requirements. Kumho Tire, 526 U.S. at 147.

To be relevant, the proposed expert testimony must be helpful to the trier of fact. See Daubert, 509 U.S. at 591–92. “Testimony from an expert is presumed to be helpful unless it concerns matters within the everyday knowledge and experience of a lay juror.” Kopf v. Skyrms, 993 F.2d 374, 377 (4th Cir. 1993); accord Koger v. Norfolk S. Ry. Co., No. 1:08-0909, 2010 WL 692842, at \*1 (S.D. W. Va. Feb. 23, 2010) (unpublished).

“[T]he test of reliability is flexible and the law grants a district court the same broad latitude when it decides how to determine reliability as it enjoys in respect to its ultimate reliability determination.” United States v. Wilson, 484 F.3d 267, 274 (4th Cir. 2007) (quotation omitted); see Kumho Tire, 526 U.S. at 141–42. A witness may qualify to render expert opinions in any one of the five ways listed in Rule 702: knowledge, skill, experience, training, or education. See Kumho Tire, 526 U.S. at 147. When a party challenges an expert’s qualifications, “the test for exclusion is a strict one, and the purported expert must have neither satisfactory knowledge, skill, experience, training nor education on the issue for which the opinion is proffered.” Kopf, 993 F.2d at 377 (quoting Thomas J. Kline, Inc. v. Lorillard, Inc., 878 F.2d 791, 799 (4th Cir. 1989)).

Other factors may also bear on the reliability of the expert's testimony. They include: (1) whether a theory or technique can be (and has been) tested; (2) whether the theory or technique has been subjected to peer review and publication; (3) whether a technique has a high known or potential rate of error and whether there are standards controlling its application; and (4) whether the theory or technique enjoys general acceptance within the relevant community. Kumho Tire, 526 U.S. at 149–50; Daubert, 509 U.S. at 593–94; United States v. Crisp, 324 F.3d 261, 265–66 (4th Cir. 2003).

“In making its initial determination of whether proffered testimony is sufficiently reliable, the court has broad latitude to consider whatever factors bearing on validity that the court finds to be useful; the particular factors will depend upon the unique circumstances of the expert testimony involved.” Westberry v. Gislaved Gummi AB, 178 F.3d 257, 261 (4th Cir. 1999) (citing Kumho Tire, 526 U.S. at 150–52). When proposed expert testimony pertains to damages, the testimony should be excluded when it “consists of an array of figures conveying a delusive impression of exactness in an area where a jury’s common sense is less available than usual to protect it.” Tyger Constr. Co. v. Pensacola Constr. Co., 29 F.3d 137, 145 (4th Cir. 1994) (quotations and citations omitted); see Boucher v. U.S. Suzuki Motor Corp., 73 F.3d 18, 21 (2d Cir. 1996) (per curiam) (“Where lost future earnings are at issue, an expert’s testimony should be excluded . . . if it is based on unrealistic assumptions regarding plaintiff’s future . . . prospects.”).

A.

SK argues that Lloyd’s use of the comparables methodology is reliable and cites Simo v. Mitsubishi Motors N. Am., Inc., 245 F. App’x 295, 300–01 (4th Cir. 2007) (unpublished), in support of Lloyd’s methodology. See SK’s Opp’n Mot. Exclude 15–21. However, Epic does not challenge the reliability of the yardstick or comparables methodology. See Epic’s Reply 4–6. Instead, Epic contends that Lloyd “did not use a valid comparables methodology” but rather “made up” a methodology, and that his calculations are not rationally related to the damages he purportedly

sought to quantify. Id. Epic also describes Lloyd’s expert assumptions as “uninformed guesses.” Id. at 1–2, 7–8.

In addition to requiring that an expert’s methodology be generally reliable, Rule 702 requires an expert to reliably apply his methodology to the facts. See Fed. R. Evid. 702; Wilson, 484 F.3d at 276; Cooper, 259 F.3d at 200. The court must exclude an expert’s testimony when it “is connected to existing data only by the ipse dixit of the expert.” Gen. Elec. v. Joiner, 522 U.S. 136, 146 (1997). In such cases, “[a] court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.” Id.

As explained in Celebrity Cruises, Inc. v. Essef Corp., 434 F. Supp. 2d 169, 179 (S.D.N.Y. 2006), “the comparable companies method is reliable only to the extent that the companies chosen are truly comparable.”<sup>17</sup> While a minor flaw in an expert’s reasoning or methodology does not render the expert’s opinion inadmissible, the data and methodology must be adequate to support the conclusions reached or the testimony must be excluded. See id. at 176 (citing Amorgianos v. Nat’l R.R. Passenger Corp., 303 F.3d 256, 266–67 (2d Cir. 2002)). Moreover, “[a] reliable expert opinion must be based on scientific, technical, or other specialized knowledge and not on belief or speculation, and inferences must be derived using . . . valid methods.” Oglesby v. Gen. Motors Corp., 190 F.3d 244, 250 (4th Cir. 1999).

As for Lloyd’s lost profit calculations for Too Human, Lloyd has failed to reliably apply the methodology to the facts and his opinion is inadmissible. First, Lloyd’s process for determining Too

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<sup>17</sup> The court further explained that

the use of comparable companies has the advantageous feature of “controlling” in a rough way for market factors. That is, factors that impact the market generally are assumed to affect the target company . . . and the comparators alike. Thus, a downturn in [the target company’s] profits is not attributed to the incident if the comparators suffer similar losses over the same period.

Id. at 180.

Human's comparable games reveals a series of ad hoc decisions based on subjective considerations, rather than identifiable (or principled) criteria. Lloyd identified six factors that he believed were relevant in predicting how many units a video game will sell. Lloyd Dep. 11–12. These factors were the game's publisher, the game's developer, the game's platform, the game's time of release, the marketing of the game, the game's franchise, and the condition of the economy at the time of the game's release. *Id.* However, Lloyd did not use any of those factors in selecting Too Human's comparable games. *See* Lloyd Decl. ¶¶ 4–7; Lloyd Dep. 131–32; Lloyd Report, Revised App. A, Schedule A-1. Significantly, despite asserting that a game's marketing budget was the key factor in predicting a game's total sales, Lloyd did not choose games with marketing budgets similar to Too Human's. *See* Lloyd Report 12 n.15, 13 & n.18; Lloyd Dep. 211–12. Moreover, Lloyd could not even recall the marketing budgets for Too Human or the comparable games that he had identified. Lloyd Dep. 70–73, 161–62, 182.<sup>18</sup>

Second, the factors that Lloyd did use were ineffective in identifying games comparable to Too Human. For example, Lloyd excluded all games that sold fewer units than Too Human. Lloyd Dep. 151–53; Lloyd Report, Revised App. A, Schedule A-1. Imposing this limitation precluded the possibility that Too Human would have sold fewer units had it been released in 2007 instead of 2008. However, Lloyd admitted that it was possible that Too Human would have sold fewer units if it had been released in 2007. Lloyd Dep. 195–97. Indeed, Lloyd concedes that there were more

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<sup>18</sup> Despite not using a game's marketing budget as a specific criterion in selecting comparable games, Lloyd stated that when he made ad hoc revisions to his list (after having imposed his six criteria), he "included other games that were . . . expected to have big marketing budgets, big pushes, big rollouts, that sort of thing, that would get the benefit of that big marketing push." Lloyd Dep. 182. Lloyd stated that this strategy justified his inclusion of Grand Theft Auto IV, an admitted "blockbuster," on his comparables list. *Id.* 181–82. However, he stated that at no point did he know the marketing budget for Grand Theft Auto IV or any other game on the list. *Id.* 182. Additionally, Lloyd's only basis for assuming that Too Human's marketing budget would have been comparable to the marketing budget that he assumed for Grand Theft Auto IV and similar "blockbusters" was Dyack's assurance that had Too Human been released in 2007, it "would have had a big marketing budget, would have been a big seller." *Id.* 181.

Xbox 360s in homes in 2008 than in 2007, Lloyd Dep. 157, and videogame sales were 23 percent higher in 2008 than in 2007. See Lloyd Report 23. Therefore, failing to consider less successful games meant that Lloyd's lost-profits figure failed to take into account all possible outcomes in the "but-for world" he sought to construct.

Lloyd committed a similar error in excluding all games with Metacritic ratings lower than Too Human's. Lloyd's only basis for not considering games with lower Metacritic ratings was that "but for the wrongful conduct, things would have been better . . . . We would have had the operable engine. We would have had a better rating. All of those sorts of things." Lloyd Dep. 188. This conclusory statement provides no support for the argument that SK would have released a game with better content, thereby earning a better Metacritic rating, in 2007 than it did in 2008. In fact, it is as likely that Too Human's rating would have been lower had SK released it in 2007, because SK probably made some improvements to the game's content during the two-year delay.<sup>19</sup>

Third, Lloyd stated that genre was an important factor in predicting a game's total sales. Lloyd Dep. 11–13. However, when selecting comparables, he chose games from six different genres that he considered related to Too Human. Lloyd Decl. ¶ 4. Lloyd did so because he "understood that Too Human has elements of different types (or genres) of videogames." Id. However, Lloyd failed to identify Too Human's specific aspects that justified placing it in all six genres. Lloyd did not even provide limiting definitions of the genres that he identified. See id. Lloyd effectively rendered his own genre limitation moot and allowed himself to choose as comparables the most successful games from a wide spectrum of the video game market.

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<sup>19</sup> SK suggests that instead of giving it time to make improvements to Too Human, the delay was analogous to a marathon runner suffering "a hit to the knee at Mile 15" of a 26.2 mile race. SK's Opp'n Mot. Exclude 16 n.5. However, SK provides no evidence to support the proposition that the delay caused it to release a game that was inferior to the game that it would have produced in 2007. See id.

Fourth, Lloyd sought to choose games as comparables that had the same target audience as Too Human. Lloyd Dep. 198. However, again Lloyd implemented this criterion in a way that rendered it meaningless: he personally determined Too Human's target audience, despite having no expertise with video games. Lloyd Dep. 198.<sup>20</sup> In addition, Lloyd circularly described Too Human's target audience as video game purchasers who purchased games similar to Too Human. Id. 199–201.<sup>21</sup> In effect, Lloyd never defined Too Human's target audience, which gave Lloyd the freedom to retain hugely successful video games as he narrowed his comparables list.

Fifth, Lloyd selected comparable games from the pool of video games released between 2006 and 2010. Lloyd Decl. ¶¶ 5, 12; see Lloyd Report, Revised App. A, Schedule A-1. In doing so, he admitted that it made sense to eliminate games released before November 2005, suggesting that data from two years prior to 2007 would not be relevant in predicting Too Human's 2007 total sales. See Lloyd Decl ¶ 5. However, Lloyd did not explain why he included games released after 2007, or even after Too Human's 2008 actual release. See id. Moreover, Lloyd admitted that he could not ensure that he had captured the appropriate range of years, stating that in choosing the range there was “a fair amount of art or subjectivity.” Lloyd Dep. 178. However, this subjectivity allowed him to select high-selling games that post-dated Too Human's actual release, like Call of Duty: Modern Warfare 2 (10.7 million total units sold) and Assassin's Creed II (3.75 million total units sold).<sup>22</sup>

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<sup>20</sup> Lloyd stated that he determined Too Human's target audience after consulting with “people familiar with the industry,” and after reviewing marketing documents, reviews, and “other information.” Lloyd Dep. 198, 200.

<sup>21</sup> Lloyd described Too Human's target audience as “[p]eople who buy role playing games. People who buy action/adventure games. Possibly some people who buy shooter games. Possibly more than the average number of females, given the role playing elements, given the enhanced characteristics of the story lines and the characters.” Id. 200–01.

<sup>22</sup> SK argues that Lloyd included these games because he intended his list to serve as a set of comparable games for not only Too Human, but also planned sequels to Too Human that “Lloyd



After compiling a list of games based on flawed criteria, Lloyd made arbitrary modifications to his list. See Lloyd Decl. ¶¶ 7–8; Lloyd Dep. 135–37, 168–69. Lloyd added Grand Theft Auto IV even though that game did not meet Lloyd’s criteria and Lloyd initially did not think that Grand Theft Auto IV was comparable to Too Human. Lloyd Decl. ¶ 7; Lloyd Dep. 142–43. Lloyd stated that his only basis for adding Grand Theft Auto IV was Sherlock’s recommendation. Id. However, he admitted that Sherlock might have actually suggested that Grand Theft Auto IV was comparable to The Ritualist, not Too Human. Id. Lloyd added Gears of War based on his own judgment, because it “had similar features or aspects” to Too Human’s, including its having been built by Epic on the version of UE3 that SK claims Too Human should have used. Lloyd Dep. 135–36.<sup>23</sup> Lloyd considered Gears of War’s “large advertising budget” an additional reason for the game’s inclusion, although Lloyd did not know what Gears of War’s marketing budget had been. Id. 136, 168. Lloyd also decided to give disproportionate weight to Mass Effect, because he believed that its “characteristics . . . were so close to Too Human that it deserved more weight in the calculation than simply as one of the 31 other games.” Lloyd Decl. ¶ 8. However, Lloyd did not state how he determined how much weight to give to Mass Effect or why he decided to give increased weight to Mass Effect based on its strong similarity to Too Human, but did not assign varying weights to all

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understood SK would have released” between 2006 and 2010. SK’s Opp’n Mot. Exclude 17. This argument is inconsistent with Lloyd’s statement that he added games to his list of comparables “based on what [he] understood about the game. The game being Too Human.” Lloyd Dep. 131; see also Lloyd Decl. ¶¶ 3–4 (“To identify those games that would provide a basis for measuring lost sales of Too Human . . . . To identify those games that were most comparable to Too Human . . .”).

<sup>23</sup> Lloyd’s statement suggests that he included Gears of War only because Epic had produced the game using the engine that SK felt the license agreement entitled SK to use. See id. This reasoning suggests that Lloyd considered any game produced on a fully operable version of UE3 comparable to Too Human. If so, this statement further demonstrates the arbitrary nature of the list. Lloyd provided no explanation for how adding some games to his list based on their qualitative similarities to Too Human and other games based on their having been produced in a manner that SK believes that Too Human should have been produced leads to a set of games that collectively provide an accurate prediction of Too Human’s expected sales.

or some of the other games on the list based on how similar he perceived them to be to Too Human. SK characterizes these modifications as part of a specific, multi-step process, whereby Lloyd used “the proxy games [Mass Effect] as a measure of the but-for sales of [Too Human], and us[ed] his comp set to confirm that his proxy’s [sic] were not unreasonable” to “arrive[] at a reasonable estimate of SK’s lost sales.” SK’s Opp’n Mot. Exclude 18. However, nothing in Lloyd’s reports, declaration, or deposition testimony suggests that he added games and modified the weighting of the added games pursuant to such a pre-conceived, structured process. In fact, Lloyd admitted just the opposite, stating that “this was more of an evolutionary list. You start here. You discuss it . . . . We may have gone back and revisited the data.” Lloyd Dep. 141; see also id., 136 (“We started with that first cut, and then we added and subtracted as we saw fit based on judgment.”).

The failure to reliably apply a methodology is grounds for excluding an expert’s testimony. See Cooper, 259 F.3d at 200. Lloyd could not recall previously having used the results-oriented and subjective methodology described to project lost profits, and there is no evidence of a known error rate for Lloyd’s methodology. Lloyd Dep. 121–22; cf. Fed. R. Evid. 702 advisory committee note (2000 amendment); Celebrity Cruises, 434 F. Supp. 2d at 179. Lloyd’s use of his methodology produced a damages figure based largely on his own subjective conclusions about an industry in which he had no prior knowledge or experience. His proposed testimony regarding SK’s lost profits is connected to the video game industry data by little more than Lloyd’s ipse dixit. See Gen. Elec., 552 U.S. at 146. Therefore, SK has failed to establish that Lloyd’s opinion meets the requirements of Rule 702. Lloyd’s projected lost profits for Too Human’s sequels, The Ritualyst, and the four undeveloped projects are all based on Lloyd’s Too Human lost profits prediction, making them likewise inadmissible. However, there are additional reasons for excluding these projections.

As for Lloyd’s projected sales for Too Human II and Too Human III, Lloyd relied on a much smaller group of comparable games. Lloyd opined that the large sample size for Too Human (thirty-one games) gave him confidence in his calculation. Lloyd Decl. ¶ 9. However, Lloyd’s projections

for Too Human II used only three games for the comparables analysis, and his projections for Too Human III used only two games. See Lloyd Report, Revised App. A, Schedule A-1. Additionally, Lloyd's projections regarding these sequels are highly speculative because they rely on the following assumptions: (1) that Too Human would have sold the additional 1.9 million units; (2) that, based on this success, Microsoft would have exercised its option to publish the sequels; (3) that Microsoft and SK would have negotiated publishing agreements with the same terms as the publishing agreement for Too Human; and (4) that the sequels also would have been "blockbuster" video games. As for the assumption that Too Human and all of these other games would have been "blockbusters," Lloyd ignores that SK has never actually produced a "blockbuster" video game. Cf. Lloyd Report 22–26 & n.34.

Under North Carolina law, proof of damages, including lost profits, "must be made with reasonable certainty." Olivetti Corp. v. Ames Bus. Sys., Inc., 319 N.C. 534, 546, 356 S.E.2d 578, 585 (1987); Weyerhaeuser v. Supply Co., Inc., 292 N.C. 557, 560–61, 234 S.E.2d 605, 607 (1977); see Blis Day Spa, LLC v. Hartford Ins. Group, 427 F. Supp. 2d 621, 629 (W.D.N.C. 2006). As a result, lost profit damages cannot be based upon "hypothetical or speculative forecasts." Blis Day Spa, 427 F. Supp. 2d at 629 (quoting Iron Steamer, Ltd. v. Trinity Rest., Inc., 110 N.C. App. 843, 847–48, 431 S.E.2d 767, 770 (1993)); see Pharmanetics, Inc. v. Aventis Pharm., Inc., No. 5:03-CV-817-FL(2), 2005 WL 6000369, at \*12 (E.D.N.C. May 4, 2005) (unpublished) ("Profit estimates which are speculative or dependent on contingent circumstances not supported in the record are not admissible to prove [plaintiff's] damages." (quotations omitted)), aff'd, 182 F. App'x 267 (4th Cir. 2006) (per curiam) (unpublished). Claims for lost profits are more likely to be speculative when the plaintiff lacks a predecessor product or profit history to use as a basis for recovery. See Pharmanetics, 2005 WL 6000369, at \*13; Olivetti, 319 N.C. at 546, 356 S.E.2d at 585–86; cf. Scheduled Airlines Traffic Officers, Inc. v. Objective: Inc., 180 F.3d 583, 588 (4th Cir. 1999)

(applying Virginia law); Boucher, 73 F.3d at 21–22 (excluding expert testimony regarding plaintiff's future income based on unrealistic assumptions).

Lloyd's projections for the Too Human sequels are based on unreliable and speculative forecasts. See, e.g., Blis Day Spa, 427 F. Supp. 2d at 629. Thus, SK's claims for lost profits relating to the Too Human sequels are too speculative to be determined with reasonable certainty.

Lloyd's lost profit estimates for The Ritualyst and the four undeveloped projects are inadmissible for the same reasons. Additionally, Lloyd did not even conduct comparables analyses for each of these games. See Lloyd Report, Revised App. A. Instead, he simply substituted the comparables analysis that he had completed for Too Human. See id. Lloyd did not make any effort to ensure that the games that he determined were comparable to Too Human were also comparable to The Ritualyst or any of the four undeveloped projects. Therefore, Lloyd did not have a proper basis to perform a comparables analysis for these games. Accordingly, his conclusions are unreliable and speculative.

Lloyd's estimates regarding SK's lost profits from royalties on ancillary sales and from unpaid bonus payments from Microsoft are also unreliable and speculative. Lloyd estimated that had Too Human been released in 2007 SK would have earned an additional \$810,000 from the sale of "ancillary products" and Microsoft would have paid SK \$750,000 in bonus payments. Lloyd Report 26–28 & Revised App. A, Schedule A. Lloyd limited his estimate regarding ancillary products to lost revenue from Microsoft's decision not to sell Too Human DLC. Lloyd Report 26–27; Lloyd Dep. 300. Lloyd "assumed that [Microsoft's] decision not to sell DLC [for Too Human] was due, at least in part, to delays in the projected release date as a result of problems with the Engine." Lloyd Report 27. However, Lloyd's only basis for this assumption was his belief that Too Human's delayed release caused the game to lose momentum, which caused Microsoft to decide not to promote Too Human to the extent that it had planned, which resulted in the market for Too Human DLC evaporating. Lloyd Dep. 298. A series of such tenuous inferences does not provide adequate

support for a central premise underlying a damages calculation. Moreover, Lloyd admitted that there was a possibility that even if SK had released Too Human in 2007, Microsoft still would not have released DLC. Id. 299. Lloyd stated that he factored this possibility into his calculation by reducing the amount that he expected SK to earn from DLC by fifty percent. Id.; Lloyd Report 28 & Revised App. A, Schedule A. However, he admitted that his decision to discount his prediction by fifty percent was based only on his own judgment and input from some unnamed parties. Lloyd Dep. 299. Lloyd provided no evidence to discount the possibility that it was more likely than not that Microsoft would not have released DLC, even if SK had released Too Human on time. See id. 299–300. In light of his admitted uncertainty regarding Microsoft’s marketing plans, Lloyd’s failure to provide a factual basis for identifying the probability rate makes his resulting damages calculation unreliable. Lloyd’s DLC estimate is dependent upon a number of other factors for which he had no information, including what DLC SK would have created, what the sale price of the DLC would have been, what royalties SK would have received from DLC sales, and what SK’s development costs for DLC would have been.<sup>24</sup> Finally, Lloyd determined his pre-discounted estimate of SK’s profits from DLC sales as being five percent of Too Human’s estimated total sales, assuming a 2007 release. For the reasons previously stated, that estimate is unreliable, making the resulting DLC estimate further unreliable.

Regarding the lost bonus payments, SK’s contract with Microsoft entitled it to receive a \$500,000 bonus payment when Too Human sold more than 1 million units, and an additional

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<sup>24</sup> Lloyd appears to have attempted to account for these factors by estimating that SK’s revenue from DLC sales would have been five percent of the revenue SK earned from unit sales of Too Human. Lloyd Report 27 & Revised App. A, Schedule A. However, Lloyd determined that a game would generate DLC revenue equal to five percent of its unit sale revenue by looking at the DLC revenue of just one game, Call of Duty, World at War. Lloyd Report, Revised App. A., Schedule A; Lloyd Dep. 301. Lloyd does not state that he considered Call of Duty, World at War to be a comparable game to Too Human. His reliance on data pertaining to it in the context of DLC sales is undercut by his reliance on comparable games in other portions of the analysis. Accordingly, his five-percent figure lacks an adequate factual basis and therefore is unreliable.

\$250,000 bonus payment when Too Human sold more than 1.5 million units. See SK-Microsoft Agreement § 6.1(c); Lloyd Report 26. Lloyd determined that Microsoft would have paid SK a \$750,000 bonus, based on his conclusion that Too Human would have sold 2.5 million units had it been released in 2007. Lloyd Report 26 & Revised App. A, Schedule A. As stated, Lloyd reached his 2.5 million unit estimate using unreliable means. Therefore, his bonus estimate is unreliable.

Lloyd estimated SK's lost profits from four games that SK claims went undeveloped as a result of Epic's misconduct. Lloyd Report 29–31 & Revised App. A, Schedule F. Lloyd intended the lost profits from these games to serve as a proxy for measuring the reputational damage that SK incurred. Id.; Lloyd Dep. 264. However, SK cites no North Carolina authority holding that a party may recover reputational damages in breach of contract or UDTPA action. Even if reputational damages are recoverable in such actions, Lloyd's calculation of SK's reputational harm is unreliable. First, Lloyd determined SK's lost profits on each of these undeveloped games using an unreliable methodology. He first determined that SK would have sold 2.5 million copies of each of the undeveloped games, based on his assumption that SK would have sold 2.5 million copies of Too Human if it had released Too Human in 2007. Lloyd Report, Revised App. A, Schedule F; Lloyd Dep. 269. Lloyd did not provide any facts to support his assumption that these four games would all have sold 2.5 million copies. In making this unsupported assumption, he relied exclusively on another unsupported assumption, that Too Human would have sold 2.5 million units but for the delay. He also discounted SK's expected profits on each game by a percentage, in order to reflect the probability that the game would not be produced. Lloyd Report 29–30. However, Lloyd admitted that in assigning these probabilities, he made another "judgment call," and that there was a wide range of reasonable probabilities that he could have chosen for each game. Lloyd Dep. 270–73. The wide range of reasonable probabilities reflects the arbitrariness of Lloyd's calculation. Second, even if Lloyd's calculations did produce a reliable estimate of SK's lost profits from these undeveloped games, neither Lloyd nor SK provide any basis for the proposition that lost profits from

four individual games are an adequate proxy for the overall harm inflicted on SK's corporate reputation.

In sum, the court excludes as unreliable and speculative Lloyd's opinions regarding SK's lost profits relating to the Too Human trilogy, The Ritualyst, and SK's four undeveloped projects.

B.

As for Lloyd's opinions regarding SK's costs to develop its own game engine, the parties agree that Microsoft and Sega reimbursed SK for any costs that SK incurred in developing its own game engine. See, e.g., SK-Microsoft Agreement, amend. 7. Under North Carolina law, a plaintiff in a breach of contract or UDTPA action may not recover damages for an injury for which it has already been compensated. See Chemimetals Processing, Inc. v. Schrimsher, 140 N.C. App. 135, 138, 535 S.E.2d 594, 596 (2000) (holding plaintiff-corporation seeking damages from its board of directors in a breach of contract and UDTPA action could not recover from the board of directors when it had already been fully compensated for its alleged injury by settling claims alleging the same injuries against its corporate president); Duke Univ. v. St. Paul Mercury Ins. Co., 95 N.C. App. 663, 681, 384 S.E.2d 36, 47 (1989) ("Payment of compensation . . . to plaintiff by a third party . . . may be shown in reduction of damages for breach of contract." (quoting 25 C.J.S. Damages § 97, at 1003–05 (1966)) (second alteration added)); see also Piedmont Inst. of Pain Mgmt. v. Staton Found., 157 N.C. App. 577, 592–93, 581 S.E.2d 68, 78 (2003); Markham v. Nationwide Mut. Fire Ins. Co., 125 N.C. App. 443, 455, 481 S.E.2d 349, 357 (1997); cf. Sun Chem. Trading Corp. v. SGS Control Servs., Inc., 159 F. App'x 459, 462 (4th Cir. 2005) (per curiam) (unpublished) ("It is well-settled that North Carolina law precludes a plaintiff from recovering more than one-satisfaction for the same injury.")). Because SK cannot recover for the damages that it claims it incurred in designing and building its own game engine, Lloyd's opinions on these damages are not relevant and therefore are excluded.

In opposition to this conclusion, SK states that had Microsoft not been required to compensate SK for its additional costs in developing Too Human, Microsoft would have invested an additional \$4 million into the marketing of Too Human. SK's Opp'n Mot. Exclude 23–24. Therefore, SK appears to reason that the money that it received from Microsoft, while compensating it for one injury, caused another injury—decreased sales of Too Human. However, SK provides no factual support for its assumption that Microsoft took funds that it had previously allocated to market Too Human to compensate SK for its increased development costs, other than the conclusory statement that “Microsoft had the will to invest a certain amount of money in Too Human.” *Id.* Moreover, even assuming SK's factual proposition, SK does not cite and the court has not found any authority to suggest that a plaintiff is not adequately compensated for his injury when such compensation subsequently causes that plaintiff to incur a second, distinct injury.

The court also recognizes that SK's publishing agreement with Microsoft entitled Microsoft to receive all royalties otherwise payable to SK from the sales of Too Human until SK fully compensated Microsoft for having covered SK's development costs. *See* SK-Microsoft Publishing Agreement, amend. 7; Lloyd Report 20–21, 23–25. SK argues that it did incur costs in developing its own game engine because of Microsoft's collection of these royalties. Lloyd Report 24–26. However, SK relies on Lloyd's lost-profits calculations to support SK's assumption that it would have earned royalties sufficient to fully compensate Microsoft, meaning that SK would have repaid Microsoft for the entire cost of developing the engine. Lloyd Report 25 & n.45. This argument rests on the faulty assumption that Lloyd accurately calculated SK's lost profits attributable to the delay. As discussed, Lloyd's calculation is flawed. Therefore, SK has no evidence that it would have received sufficient royalties from total sales of Too Human to fully reimburse Microsoft. Instead, the record shows that Microsoft compensated SK for its game engine development costs.



C.

As for Lloyd's opinions regarding SK's damages based on Epic's unjust enrichment, Epic argues that this testimony is not relevant because Epic's profits are not an adequate measure of SK's damages and because Lloyd used a flawed methodology in determining Epic's profits. See Epic's Mem. Supp. Mot. Exclude 21–22. SK responds that Lloyd has accurately calculated Epic's wrongful gain from Epic's alleged breach of the license agreement, and that SK is entitled to a portion of Epic's unjust enrichment as compensatory damages for the breach. See SK's Mem. Opp'n Mot. Exclude 26.

The court dismissed SK's unjust enrichment claim. See [D.E. 605]. In doing so, the court adopted the magistrate judge's memorandum and recommendations. Id.; see id. Mem. & Rec. [D.E. 592]. The magistrate judge held that SK had "failed to come forward with any evidence sufficient to raise a question as to the validity of the License Agreement," and thereby had failed "to adequately support its unjust enrichment claim." Mem. & Rec. 33. Nevertheless, SK argues that the portion of Epic's "unjust enrichment" to which SK is entitled serves as an alternative measure of SK's breach of contract damages, even absent a substantive claim for unjust enrichment. See SK's Mem. Opp'n Mot. Exclude 26. In support, SK cites Polo Fashions, Inc. v. Craftex, Inc., 816 F.2d 145, 147 (4th Cir. 1987). In Polo Fashions, plaintiff alleged trademark infringement in violation of the Lanham Act and a violation of North Carolina's UDTPA, based on defendants' sales of clothing bearing a mark substantially similar to plaintiff's iconic mark. 816 F.2d at 147. In affirming the district court's award of damages for the UDTPA violation based on defendants' wrongful profits, the Fourth Circuit held that "[t]he defendants' profits . . . are a rough measure of the plaintiff's damages. Indeed they are probably the best measure of damages available." Id. at 149.

Polo Fashions is distinguishable. First, in Polo Fashions, the court reasonably assumed that defendants' profits from sales of clothing bearing the offending mark were a direct result of the presence of the mark on the clothing. See id. Here, the link between Epic's allegedly wrongful

conduct and its profits from sales of three video games and licensing of a video game engine is much more tangential. Lloyd stated that Epic's unjust enrichment was an adequate measure of damages because there was evidence that suggested that Epic "diverted its resources from the development of [UE3] to development of its own portfolio of products," resulting in SK's having "indirectly invested in the products Epic has developed with the resources not devoted to [UE3]." Lloyd Report 31–32. However, Lloyd does not provide any support for his assumption that Epic developed its own video games and developed UE3 using funds diverted from its UE3 license agreements. It is much easier for a court to assume that a defendant in a trademark infringement action sold clothing because the clothing bore the infringing mark than it is for the court to assume that a business with multiple revenue sources developed and profited from a line of products only because it received revenue from but did not perform its obligations under a set of contracts. Second, the Polo Fashions court looked to defendants' profits as a basis for damages because of the impossibility of calculating plaintiff's damages in more exact terms. See 816 F.2d at 149 ("[I]nstead of having a fact finder assess damages with little guidance, fairness to the infringers suggests strongly that the plaintiff's damages should be limited to the defendants' profits."). SK does not contend that Epic's unjust enrichment is the only available measure of SK's damages. See SK's Mem. Opp'n Mot. Exclude 26–27. To the contrary, Lloyd asserted that the comparables analysis, which he described as a "standard, widely-accepted in measuring damages," produced a reliable measure of SK's damages. Lloyd Decl. ¶ 2. SK provides no basis for holding that fairness requires the court to look to Epic's profits in calculating SK's damages when SK has provided a theoretically reliable (but unreliably executed) alternative means of calculating its damages. Therefore, Epic's profits cannot serve as a basis for calculating SK's compensatory damages. See Watson v. Dixon, 352 N.C. 343, 347, 532 S.E.2d 175, 178 (2000) ("The objective of compensatory damages is to restore the plaintiff to his original condition or to make the plaintiff whole."); United Labs, Inc. v. Kuykendall, 335 N.C. 183, 195, 437 S.E.2d 374, 381 (1993). Instead, Lloyd's calculation of SK's share of Epic's allegedly

unjust enrichment is relevant only in measuring damages for a previously dismissed unjust enrichment claim. Accordingly, this testimony is not relevant and is excluded.

Alternatively, Lloyd's determination of SK's entitlement to Epic's supposed wrongful gains is unreliable. Lloyd calculated Epic's unjust enrichment in two ways, both of which rested on flawed assumptions. See Lloyd Report 33.

Lloyd's first measured Epic's unjust enrichment based on "the historical, actual profits realized from the release of Unreal Tournament 3, Gears of War, and Gears of War II, and [UE3]." Id. & Revised App. A, Schedules G, K, L. However, his conclusion that SK is entitled to a share of these profits rests on the unfounded assumption that "that Epic's gains were at the detriment of SK and other UE3 licensees." Lloyd Report 33. As discussed, Lloyd cited no factual basis for this assumption. Therefore, this determination of SK's claimed share in Epic's profits rested upon an unfounded assumption, making it unreliable.

Lloyd's second approach attempted to predict the ongoing value of these four products to Epic. Id. Lloyd calculated the products' ongoing value by attempting to calculate Epic's cash flows. Id. 37 & Revised App. A, Schedule H. In determining Epic's cash flows, Lloyd considered:

Epic's historical and projected revenue; expected working capital for ongoing operations; capital and debt considerations; revision of expected bonus payouts and non-cash considerations (amortization and depreciation); a declining share rate of UE3-Related Products to consider phase out of UE3 Related Products from Epic's product portfolio; and application of discount rate to present value the future cash flow.

Lloyd Report 35. Lloyd relied on a report prepared for Epic by a third-party auditor in gathering the data for these factors. Id. 35 n.63, 39–40. However, he also conducted his own analysis of Epic's financial data for the period between 2005 and 2008. Id. 39–40. In some instances Lloyd found the data of the third-party auditor unreliable. Id. In those cases, Lloyd replaced the auditor's data with his own. Id. Lloyd stated that these substitutions were warranted because the auditor prepared its report for purposes distinct from Lloyd's purposes and valuation studies like the auditor's report

are generally designed to benefit the company by undervaluing corporate assets. Id. 40. Epic characterizes Lloyd's process as "discard[ing] the portions of the report that did not suit his desired outcome and substitut[ing] assumptions that he preferred." Epic's Mem. Supp. Mot. Exclude 22. Lloyd's substitutions did produce a cash flow calculation higher than the calculation would have been had he relied exclusively on the auditor's report. See Lloyd Report, Revised App. A, Schedule I-M.

Assuming without deciding that the auditor's report undervalued Epic's total assets, Lloyd's projection of Epic's cash flow is not reliable because Lloyd provided no factual support for the alternate figures that he used. Cf. Lloyd Report 39-40. Notably, Lloyd determined that the bonus payments that Epic paid to its corporate executives were "excessive," and he accordingly discounted Epic's bonus payments by ninety percent. Id. & Revised App. A, Schedule H, M.<sup>25</sup> Lloyd reached this conclusion based on his colleague's review of "six or eight other videogame software companies," the identities of which he could not recall in his testimony. Lloyd Dep. 279-80.<sup>26</sup> Moreover, Lloyd did not state how he determined that ninety percent of Epic's executive bonus payments were wrongly excluded from its cash flow, as opposed to some smaller percentage. Therefore, Lloyd calculated Epic's cash flow based on his independent re-characterization of significant business expenses, without providing an adequate factual basis for why the expenses should be re-characterized or how he should re-characterize them. Lloyd's arbitrary use of his own

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<sup>25</sup> Lloyd concluded that Epic had falsely characterized as bonus payments what were actually stock dividend payments to majority shareholders, thereby allowing the company to adequately compensate its executives and simultaneously understate its cash flow. Lloyd Report 42. By the time of his deposition, Lloyd stated that further analysis had led him to conclude that only five percent of Epic's payments to its executives were classifiable as employee bonus payments, and he had accordingly adjusted his calculations. Lloyd Dep. 280.

<sup>26</sup> Lloyd stated that he believed that the six companies that he considered were listed in his rebuttal report. Lloyd Dep. 281. A review of that report does not indicate what companies Lloyd considered. See Lloyd Rebuttal 1-12.

unsubstantiated judgment makes his calculation of Epic's cash flow unreliable. The unreliability of Lloyd's calculations provide an alternative ground for excluding Lloyd's unjust enrichment testimony.

Lloyd also seeks to testify regarding Epic's cash flow in the context of SK's claim for punitive damages. Lloyd Report 38–40. For the reasons already discussed, Lloyd's calculation of Epic's cash flow is unreliable to prove punitive damages to the same extent that it is unreliable to prove compensatory damages. Moreover, the court already has “reject[ed] SK's claim that Epic's bonus payments, projected revenue, or projected value are relevant to punitive damages.” See [D.E. 692] at 7–8; see N.C. Gen. Stat. § 1D-15(c).

D.

As for Lloyd's rebuttal report, Epic contends that Lloyd's rebuttal opinions are inconsistent with the facts of the case. See Epic's Mem. Supp. Mot. Exclude 23. Indeed, Lloyd's rebuttal report hypothesizes that SK could have renegotiated the terms of the UE3 license agreement or SK could have used a free version of UE3 (“Unreal Development Kit” or “UDK”), which Epic made available in November 2009. See Lloyd Rebuttal 8–10. According to Lloyd, if SK had taken these steps, Epic's damages would be much lower. See id.

Lloyd's only factual support for his conclusion that Beutel erred in believing “that SK could not, or would not, have renegotiated their [sic] licensing agreement with Epic for [UE3]” was that “Epic did renegotiate licensing fees with some UE3 licensees.” Lloyd Rebuttal 8. Epic's occasional renegotiations do not support Lloyd's conclusion. Between 2005 and 2008, Epic renegotiated eight of its UE3 license agreements. See Lloyd Rebuttal, App. A, Schedule A-1. During the same period, Epic had license agreements with 175 licensees. See List of Licensees [D.E. 67]. Moreover, in only four of the renegotiations that Lloyd cites did the renegotiation result in more favorable terms for the licensee. See Lloyd Rebuttal, App. A, Schedule A-1. Nevertheless, Lloyd claims that it was unreasonable for Beutel to assume that SK would not have favorably renegotiated its agreement with

Epic, despite the fact that Epic had agreed to such licensee-favorable modifications in only two percent of its UE3 license agreements. Such modifications were hardly “firmly rooted in Epic’s practices,” as SK would have the court believe. See SK’s Mem. Opp’n Mot. Exclude 29. Moreover, Lloyd did not identify any incentive for Epic to renegotiate its agreement with SK. Epic instead persuasively argues that “renegotiating the license agreement to lower SK’s license fees only could have harmed Epic’s economic interests.” Epic’s Mem. Supp. Mot. Exclude 23.

In addition to being factually unsupported, Lloyd’s argument concerning a hypothetical contract renegotiation is legally unsound. SK does not cite, and the court has not located, a case holding that a defendant in a breach of contract action can avoid liability for the alleged breach by arguing that the plaintiff would have favorably modified the contract had the defendant so requested. Such a rule would produce the absurd result of essentially rendering contractual language meaningless.

Lloyd also states that Beutel failed to consider the possibility that SK would have stopped using UE3 in November 2009 and started using “a free version of UE3,” UDK. Lloyd Rebuttal 9 (emphasis in original). However, Epic states that SK would have had to pay a fee of \$99 and 25% of all UDK-related income above \$50,000 to use UDK. Epic’s Mem. Supp. Mot. Exclude 24. Epic argues that since SK’s financial statements demonstrate that SK “recorded as revenue millions of dollars in advance royalty payments from publishers between 2004 and 2008,” the UDK license would have cost SK a significant amount of money. Id.; see id. Ex. 9 (SK’s financial statement). Accordingly, in contrast to Lloyd’s assumptions, switching to the UDK in 2009 would not have been free to SK.

Rule 702 permits expert testimony based on, inter alia, “sufficient facts or data.” Fed. R. Evid. 702(b). “The language ‘facts or data’ is broad enough to allow an expert to rely on hypothetical facts that are supported by the evidence.” Id. advisory committee note (2000 amendment) (citations omitted). Lloyd, however, relied on hypothetical facts that are not supported

by the evidence in forming his opinions regarding Beutel's report. Accordingly, this testimony is not relevant and inadmissible. Fed. R. Evid. 702; see Daubert, 509 U.S. at 591; Newman v. Hy-Way Heat Sys., Inc., 789 F.2d 269, 270 (4th Cir. 1986) ("It is fixed law that an expert can give his opinion on the basis of hypothetical facts, but those facts must be established by independent evidence properly introduced." (quotation omitted)); Casey v. Geek Squad Subsidiary Best Buy Stores, L.P., \_\_\_ F. Supp. 2d \_\_\_, 2011 WL 5505376, at \*6 (D. Md. Nov. 10, 2011).

Epic also objects to Lloyd's reliance on information that SK provided and his conclusion that SK's advance royalty payments are not considered revenue. See Epic's Mem. Supp. Mot. Exclude 24. Although these disputes appear to go to the weight of Lloyd's testimony rather than its admissibility, they are not material to the testimony, and the court concludes that Lloyd is not entitled to testify on these immaterial issues when the remainder of his testimony is inadmissible.

E.

Alternatively, Lloyd admitted that he assumed that Epic was liable for all of SK's alleged claims when preparing his report. Lloyd Dep. 20 ("Well the entire report is premised on the assumption that Epic is guilty of the acts alleged."). However, since Lloyd prepared his report, the court granted summary judgment as to SK's claims of intentional interference with contractual relations, intentional interference with prospective economic advantage, unjust enrichment, and rescission or reformation. [D.E. 605]. Therefore, Lloyd's damages calculations are based on an assumption regarding SK's success on all of its claims that is no longer viable. A damages model premised on a false assumption is not reliable. See Pharmanetics, 2005 WL 6000369, at \*10 ("As [the expert's] damages model is premised upon plaintiff's success on all of its causes of action, and does not allow, even in the alternative, for an adjustment of damages to account for those claims no longer remaining, it is not a reliable measure of damages."). Accordingly, Lloyd's opinions are excluded.

### III.

In sum, the court GRANTS Epic's motion to exclude the reports and testimony of Terry Lloyd [D.E. 620], and excludes Lloyd's opinions on damages. The court DENIES in part and GRANTS in part Epic's motion to seal the supporting memorandum and exhibits [D.E. 623]. Sections III, IV.C, IV.D, IV.E, and IV.F of Epic's memorandum and the accompanying exhibits to the motion and memorandum are properly sealed. The balance of the memorandum is not. The court also DENIES in part and GRANTS in part SK's motion to seal the response in opposition and accompanying exhibits [D.E. 644]. Sections II, IV.C, IV.D, IV.E, and IV.F of SK's response are properly sealed. The balance of the response and the accompanying exhibits are not.

SO ORDERED. This 22 day of December 2011.

  
JAMES C. DEVER III  
Chief United States District Judge